

Appl. No. 10/080,150
Amtd. dated 08/17/2004
Reply to Office Action of 05/20/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (amended):

A device, comprising:

a pressure vessel having a first end and an opposing second end;
a port in each of the opposing ends of the pressure vessel;
a vessel rail contained entirely within the pressure vessel, the vessel rail having
a first end adjacent the first end of the pressure vessel, vessel and
an opposing second end adjacent the second end of the pressure vessel, and vessel;
an upper surface with a length extending from the first end of the vessel rail to the
second end of the vessel rail,
the vessel rail being movable perpendicular to the length between a first position and
a second position;
a movable rail disposed adjacent each of the opposing ends of the pressure vessel, each
the movable rail having a first end and an opposing second end, the first end of each the
movable rail being movable between a first position in which the first end of the movable
rail is within the pressure vessel and contiguous with the first end of the vessel rail, and a
second position in which the first end of the movable rail is outside the pressure vessel;
and vessel;
a heating element located within the pressure vessel between the first and second ends of
the vessel rail such that the upper surface of the vessel rail is above the heating element
when the vessel rail is in the first position and below an upper surface of the heating
element when the vessel rail is in the second position.

Claims 2-3 (cancelled)

Claim 4 (original):

The device of claim 1, wherein the second ends of each of the movable rails is outside the pressure vessel and the device further comprises a loading rail with a hinged connection to the second ends of each of the movable rails such that each movable rail can fold at approximately a right angle to the connected loading rail to move to the second position.

Claim 5 (original):

The device of claim 1, wherein the movable rail moves from the first position to the second position by moving away from the vessel rail in a direction of the length of the movable rail.

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Claim 6 (amended):

A device, comprising:

a vessel means for providing a pressure-tight chamber;
port means for allowing workpieces to move into and out of the vessel means;
a heating means for heating the workpieces;
a first rail means for supporting the workpieces being moved into the pressure vessel,
vessel means above the heating means, and for lowering the workpieces onto the heating
means by movement of the first rail means below an upper surface of the heating means,
the first rail means being contained entirely within the vessel means;
a second rail means for supporting the workpieces being moved into the pressure vessel,
the second rail means being movable between a first position in which the first and
second rail means provide a substantially smooth and straight upper surface and a second
position in which the port means can be sealed.

Claims 7-8 (cancelled)

Claim 9 (original):

The device of claim 6, further comprising a third rail means for supporting the workpieces
being moved into the pressure vessel, the third rail means being located entirely outside the
vessel means.

Claim 10 (amended):

A device, comprising:

a pressure vessel having a first end and an opposing second end;
a port in each of the opposing ends of the pressure vessel;
a pair of parallel vessel rails contained entirely within the pressure vessel, each vessel rail
having a first end adjacent the first end of the pressure vessel and an opposing second end
adjacent the second end of the pressure vessel; vessel, each vessel rail having an upper
surface with a length extending from the first end of the vessel rails to the second end of
the vessel rails, the vessel rails being movable perpendicular to the lengths between a first
position and a second position,

two pairs of movable rails disposed adjacent each of the opposing ends of the pressure
vessel, each movable rail having a first end and an opposing second end, the first end of
each movable rail being movable between a first position in which the first end of the
movable rail is within the pressure vessel and contiguous with an adjacent end of the
vessel rail, and a second position in which the first end of the movable rail is outside the
pressure vessel; and vessel.

a heating element located within the pressure vessel between the vessel rails such that the
upper surfaces of the vessel rails are above the heating element when the vessel rails are

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in the first position and below an upper surface of the heating element when the vessel rails are in the second position.

Claims 11-12 (cancelled):

Claim 13 (previously presented):

The device of claim 10, wherein the second ends of each of the movable rails is outside the pressure vessel and the furnace further comprises two pairs of loading rails, each loading rail having a hinged connection to the second end of the adjacent movable rail such that each movable rail can fold at approximately a right angle to the connected loading rail to move to the second position.

Claim 14 (previously presented):

The device of claim 10, wherein each of the movable rails moves from the first position to the second position by moving away from the vessel rails in a direction of the length of the movable rail.

Claim 15 (cancelled)

Claim 16 (previously presented):

The device of claim 10, wherein each of the ports is a sealable port that can be sealed when the adjacent pair of movable rails is in the second position.

Claim 17 (previously presented):

The device of claim 1, wherein each of the ports is a sealable port that can be sealed when the adjacent movable rail is in the second position.